

# Protein-Free Sample Diluent

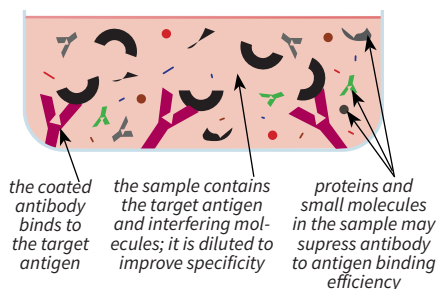
## A stable protein-free matrix for dilution of biological samples.

Protein-Free Sample Diluent is a protein-free matrix used for the dilution of biological samples (e.g. serum, cell culture media) into the useful range of antibody-sandwich or antigen-down ELISA-format assays. This unique buffer contains a heterogeneous mixture of proprietary molecules that help reduce background noise associated with non-specific bridging of signal-generating conjugates to the plate well surface.

Sample diluents are used to dilute samples into the functional range of the assay and to create the standard curve. Due to the finite binding capacity of the plate well-coated proteins (e.g., antibodies, antigens), highly concentrated samples must be diluted in order to obtain absorbance readings within the sensitivity detection limits of the instrument. Properly formulated sample diluents will also reduce background noise associated with non-specific bridging of signal-generating conjugates to the plate well surface.

Protein-Free Sample Diluent provides a non-protein-based buffered, neutral pH environment that is highly compatible with antibody-antigen interactions. Antimicrobial agents allow for room temperature bench-top use and extensive storage stability at 2-8°C.

### Dilute samples within the detection limits of the ELISA



### PROTEIN-FREE SAMPLE DILUENT

Size	Catalog #
100 mL	#6702
500 mL	#6703
1 L	#6704
10 L	#6707

### INSTRUCTIONS:

1. Prepare standards in Protein-Free Sample Diluent.
2. Dilute samples in Protein-Free Sample Diluent.
  - Serum samples should generally be diluted at least 1:50 in order to minimize backgrounds caused by non-specific antibody binding.
  - To dilute the sample 1:100, add 1 part sample to 99 parts Protein-Free Sample Diluent. For example, add 10  $\mu$ L sample to 990  $\mu$ L Protein-Free Sample Diluent for a total of 1,000  $\mu$ L.
  - Highly concentrated samples may need to be diluted 1:1,000 or more.
3. Once diluted, run the assay according to the specific ELISA protocol.
4. Analyze the data. If the samples were diluted 1:100, the dilution factor must be considered when calculating the value. For example, if the sample generated an OD value that correlates to 500 pg/mL based on the standard curve, multiply by the dilution factor of 100 to yield a true concentration of 50,000 pg/mL = 50 ng/mL in the sample.

For more ELISA protocols and information, please visit [www.immunochemistry.com](http://www.immunochemistry.com).

### SPECIFICATIONS:

- Clear liquid
- 1X ready to use
- pH 7.1-7.6

### STORAGE:

- 24 months at 2-8°C
- 1 week at room temperature

### SAFETY & USAGE:

- Contains  $\leq$  0.1% sodium azide
- SDS available at [immunochemistry.com](http://immunochemistry.com)
- Not for human or drug use
- For research use only

*Build a better assay with ELISA Solutions from ImmunoChemistry Technologies.*

### BRIGHT MINDS, BRIGHT SOLUTIONS.

ImmunoChemistry Technologies, LLC gratefully acknowledges the significant contributions made by one of its founders, Brian W. Lee, Ph.D in the development of this product, including the creation and illustration of its strategy and protocol.

